

Claims

WE CLAIM:

1. A method for producing paper pulp for use in the  
5 making of paper from eucalyptus wood chips, comprising in  
the steps of:
  - a) inoculating the wood chips with white rot fungi;
  - b) fermenting the wood chips so as to cause a  
propagation of the fungus through the wood chips and  
10 allow the fungus to modify lignin; and
  - c) pulping the degraded wood chips by a known kraft  
process.
2. A method as claimed in claim 1 together with the  
further step of bleaching the kraft pulp by a known  
15 multistage bleaching process.
3. Canceled.
4. A method as claimed in claim 1 wherein the  
fermentation step is a static fermentation step.
5. A method as claimed in claim 1 wherein the white rot  
20 fungus is *C. subvermispora*.
6. A method as claimed in claim 5 wherein the *C.*  
*subvermispora* is a strain selected from the group  
consisting of: L-14807-SS-3, CZ-3, FP-105752-SS-5, FP-  
10572 and L-9186-SP.
- 25 7. A method as claimed in claim 1 wherein said white  
rot fungus is *Hyphodontia setulosa*.
8. A method as claimed in claim 1 wherein said white  
rot fungus is *Phlebia subserialis*.
9. A method as claimed in claim 1 wherein said white  
30 rot fungus is *Phlebia brevispora*.

10. A method as claimed in claim 1 wherein said white rot fungus is *Phlebia tremellosa*.
11. A method claimed in claim 1 wherein said white rot fungus is *Phanerochaete chrysosporium*.
- 5 12. A method as claimed in claim 1 wherein the wood chips are inoculated with the fungus and without nutrients.
13. A method as claimed in claim 1 wherein the wood chips are inoculated with the fungus and known nutrients.
- 10 14. A method as claimed in claim 1 wherein the moisture content of the chips prior to the step of inoculation is kept at fibre saturation point or greater.
15. A method as claimed in claim 1 wherein said moisture content is 50-55% of the total wood based on a wet weight
- 15 of the chips.
16. A method as claimed in claim 1 wherein the wood chips are inoculated with 1 to 5 gms inoculum/ton of wood.
17. A method as claimed in claim 1 wherein the moisture
- 20 content in the wood during the step of fermentation is 55-65%.
18. Biotreated eucalyptus wood chips for kraft pulping prepared by the process comprising
- inoculating the eucalyptus wood chips with white rot
- 25 fungi, and
- fermenting the wood chips so as to cause propagation of the fungus through the wood chips and obtain chemically modified lignin.

19. A method as claimed in claim 1, further comprising making paper from pulp produced in step (c).